

Media release

Rio Tinto, Geocycle Canada and Lafarge Canada partner for circular economy project

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Rio Tinto, Geocycle Canada and leading construction materials company Lafarge Canada are working together to reuse waste from the aluminium smelting process to make cement. In this circular economy initiative, the trio will reduce the need to extract other raw materials and create value from waste.

Geocycle Canada, a Lafarge Canada subsidiary, and Rio Tinto have developed a new product called Alextra, made from used potlining, as part of the aluminium electrolysis process that would otherwise go to landfill.

Alextra is the result of years of research and development, aimed at finding new ways to deliver sustainable outcomes and value from used potlining.

Lafarge Canada will produce on average one million tonnes of cement a year at its facilities in Bath, Ontario, using Alextra as an alternative to raw materials such as alumina and silica, which are commonly refined or mined for use in the manufacturing of cement.

The companies will explore options to further expand the supply of Alextra from Rio Tinto's Potlining Treatment Plant in Saguenay-Lac-St Jean to Lafarge Canada's network of cement plants.

Rio Tinto Aluminium manager valorization and marketing Stéphane Poirier said: "This partnership shows how Rio Tinto is innovating to find new ways to reuse waste, generating value from our operations and reducing their environmental footprint. We have worked closely with Lafarge Canada and Geocycle Canada over the past two years to develop a product that meets their needs and look forward to building on this partnership."

Geocycle Canada senior manager Travis Smith explains: "As a global leader in building materials, we are committed to living up to the responsibility of helping to create a zero waste future. In order to achieve this goal, we need progressive partners such as Rio Tinto, and we look forward to what the future holds as we work to reduce our demand on virgin materials and deliver sustainable products."

Notes to editors

Rio Tinto

Rio Tinto is the only primary aluminium producer in North America to process its potlining, an industrial residue from primary aluminium production, into an inert by-product. The company's Potlining Treatment Plant is capable of treating 80,000 tonnes of potlining per year from across Rio Tinto's plants in North America and other producers.

Rio Tinto invests in numerous projects to reuse by-products from its operations in Quebec. This summer, the company won the award Appel à initiatives 2020 from Québec Circulaire in the large business category, for its reuse of anhydrite, an industrial by-product used in the agricultural industry for its fertilizing properties and in the construction industry as a substitute for gypsum in the formulation of cement.

Geocycle Canada

Geocycle Canada, a subsidiary of Lafarge Canada, is a part of the global Geocycle network, which represents over 80 waste pre-treatment facilities and over 180 cement plants with dedicated co-processing installations. Geocycle partners with industries, service companies and municipalities to help them achieve their environmental commitments, by providing waste management solutions that are practical, economical and sustainable. Geocycle Canada applies the proven technologies of 'pre-processing' and 'co-processing,' and utilizes existing facilities in the cement industry to resolve waste challenges sustainably. This enables Geocycle to recover energy and recycle materials from waste, contributing to a regenerative, circular economy that closes resource cycles. Geocycle Canada operates facilities in British Columbia, Alberta, Quebec, Ontario and Nova Scotia, and some of its customers include many Fortune 500 companies. Last year, Geocycle Canada reduced the amount of waste going to Canadian landfills by more than 500,000 tons, thus making a tangible contribution to bringing societies one step closer to a zero-waste future.

Lafarge Canada

Lafarge is the largest supplier of diversified building materials in Canada and is part of the global LafargeHolcim group.

With a workforce of 6,000 employees and 400 sites across Canada, Lafarge Canada's mission is to provide solutions that build better cities and communities. Cement, aggregates, ready-mix and precast concrete, asphalt mixes, paving and construction, we add value to every project.

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